ACTAAP

Arkansas Comprehensive Testing, Assessment, and Accountability Program

Released Item Booklet

Arkansas Augmented Benchmark Examination

APRIL 2008 ADMINISTRATION

GRADE

5

Arkansas Department of Education

ISBN 9998712548

ISBN 999-8712-54-8

9 789998 712546

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PART I Overview–2008 Augmented Benchmark Grade 5

The criterion-referenced tests implemented as part of the **Arkansas Comprehensive Testing, Assessment, and Accountability Program** (ACTAAP) are being developed in response to Arkansas Legislative Act 35, which requires the State Board of Education to develop a comprehensive testing program that includes assessment of the challenging academic content standards defined by the Arkansas Curriculum Frameworks.

As part of this program, all Grade 5 students in Arkansas public schools participated in the *Grade 5 Augmented Benchmark Examination* in April 2008.

This *Released Item Booklet for the Grade 5 Augmented Benchmark Examination* contains test questions or items that were asked of students during the April 2008 operational administration. The test items included in Part II of this booklet are those items that contributed to the student performance results for that administration. **Please make note that only 50% of the 2008 criterion-referenced test items are released in this booklet.**

Students were given approximately two and a half hours each day to complete assigned test sessions during the five days of testing in April 2008. Students were permitted to use a calculator for the Mathematics items (both multiple-choice and open-response), with the exception of questions 1–3 in this *Released Item Booklet*. Students were also supplied with a reference sheet to be used during the Mathematics sessions so that all students would have equal access to this information during testing. (See the reference sheet on page 25 of this booklet.) All of the Reading, Writing, Mathematics, and Science multiple-choice items within this booklet have the correct response marked with an answer hand. The open-response questions for Reading, Mathematics, Science, and the prompt for Writing are listed with scoring guides (rubrics) immediately following. These rubrics provide information on the scoring model used for each subject, with the scoring model for Writing defining the overall curricular and instructional link for that subject with the Arkansas *English Language Arts Curriculum Framework*. The domain scoring model, implemented within Arkansas for a number of years, illustrates the appropriate instructional approaches for Writing within the state.

The development of the *Grade 5 Augmented Benchmark Examination* was based on the Arkansas Curriculum Frameworks. These frameworks have common, distinct levels: *Strands*, which are broad concepts, *Content Standards* within each Strand, and *Student Learning Expectations* within each Content Standard. Abridged versions of the Arkansas *English Language Arts Curriculum Framework—Reading Strand*, Arkansas *English Language Arts Curriculum Framework—Writing Strand*, Arkansas *Mathematics Curriculum Framework,* and Arkansas *Science Curriculum Framework* can be found in Part III of this booklet. It is important to note that these abridged versions list only the predominant Strand, Content Standard, and Student Learning Expectation associated with each item. However, since many key concepts within the Arkansas Curriculum Frameworks are interrelated, in many cases there are other item correlations or associations across Strands, Content Standards, and Student Learning Expectations.

Part III of the *Released Item Booklet* also contains a tabular listing of both released and non-released items, aligned to the Strand, Content Standard, and Student Learning Expectation that each question was designed to assess. The multiple-choice and open-response items found on the *Grade 5 Augmented Benchmark Examination* were developed in close association with the Arkansas educational community. Arkansas teachers participated as members of Content Advisory Committees for each subject area, providing routine feedback and recommendations for all items. Part III of the *Released Item Booklet* provides Arkansas educators with specific information on how the *Grade 5 Augmented Benchmark Examination* items align or correlate with the Arkansas Curriculum Frameworks to provide models for classroom instruction.

100000043697

Read this passage about a father's support of his sons' dreams. Then answer multiple-choice questions 1 through 8 and open-response question 1.

by Aileen Friedman

Once there was a tailor who had three fine sons. The tailor loved his sons and appreciated their helpfulness.

Ivan, the oldest son, picked up all the pins from the floor of his father's shop and gathered together all the little pieces of loose thread. Whenever he could, Ivan watched his father measure, cut, and sew. He wanted to be a tailor himself one day and work alongside his father.

Alex, the middle son, brought his father bolts of fabric to cut and then carefully put them away. Whenever he could, Alex practiced sewing together the small, leftover pieces of fabric. He, too, wanted to be a tailor and work alongside his father.

4 Misha, the youngest son, carried the finished jackets and cloaks[1] and dresses to his father's customers all over town. Whenever he could, he stopped at the bookseller's shop around the corner. There, he pored over maps of the world and pictures of faraway places. Unlike his brothers, Misha did not want to be a tailor and work alongside his father. He dreamed instead of traveling far and wide, and making his own way in the world.

One morning, the tailor gathered his three sons before him. "Now is the time," he said, "for each of you to show that you can do the work of a tailor.

"Our good customer, the Archduke,[2] leaves on an important journey in just three days. For this journey, he has ordered three new cloaks for himself and three dresses for his wife. I can sew the dresses, but, to get the job done on time, each of you must make one cloak."

The sons were glad to help their father and listened carefully to his instructions.

"First of all," explained the tailor, "the Archduke wants his cloaks to be very colorful. Every bolt of fabric we have is of just one color, so each of you will have to cut pieces from many bolts and sew them into a single colorful cloth of your own design. Of course, the cloak you fashion from your cloth will also have to protect the

[1]cloak: a loose outer garment or cape

[2]Archduke: a prince

Archduke from the wind and the rain. Work by yourselves, so that all three cloaks will be different."

The sons got busy right away.

Ivan first studied the bolts of fabric. He had seen his father use them all at one time or another, so he cut a rectangle from each one. Then, using the pattern of bricks on the floor, Ivan carefully sewed the rectangles together. From this beautiful cloth of many colors, he fashioned a cloak for the Archduke. Ivan was ready on the morning of the third day to present the cloak to his father.

Meanwhile, Alex had thought of the colors of the Archduke's carriage and the coat of arms that was painted on its side. He pulled down the bolts of red, yellow, and purple fabric and cut many squares from each bolt. He nimbly stitched the squares together to make one beautiful cloth of the Archduke's colors, then fashioned the cloth into a sturdy cloak. Because of all his sewing practice, Alex worked quickly enough to have his cloak ready by the morning of the second day.

With a day to spare, Alex had time to worry. "Perhaps my cloak isn't interesting enough," he thought. "Perhaps the Archduke would want something more." He thought again of the Archduke's coat of arms and the pattern of its background. Then he went back to work.

Alex cut more red, yellow, and purple squares, but this time he snipped them in half on the diagonal. He sewed these triangles together to match the pattern on the Archduke's coat of arms, and fashioned this new cloth into another cloak. Alex sewed even faster than he had the first time, and the second cloak was ready on the morning of the third day.

All the while, Misha was working, too. He thought of going out into the world as he cut circles from the bolts of fabric. He picked his colors from the maps he loved—blue for the deep oceans and winding rivers, green for the meadows of the countryside, yellow for the sands of the deserts, red for the routes between faraway places.

Misha sewed his circles together, carefully joining them where they met, and the cloth he made was beautiful. But when he held it up to the light, Misha saw that it was full of open spaces. He could tell this cloth wouldn't make a proper cloak, but he did not have time to start over. Although he worried that the cloak would disappoint his father, Misha completed it in time.

On the morning of the third day, when the tailor had sewn the last stitch on the third dress for the Archduke's wife, he called for his sons to bring in their cloaks.

Ivan proudly showed his cloak of many-colored rectangles.

"You have made a beautiful cloak, Ivan," said the tailor. "I am honored to present it to the Archduke. From now on, you will be a tailor, too, and work alongside your father."

Happy for his brother, but still unsure of his own work, Alex showed his two cloaks to his father.

"Why, Alex," said the tailor, "you have made *two* beautiful cloaks! How thoughtful of you to use the Archduke's own colors. He will be thrilled to wear these, I'm sure. And your quick, even stitches show me that you, too, are ready to be a tailor and work alongside your father."

"Now, Misha," he said, turning to his youngest son, "let me see the cloak you have made."

"I'm afraid I did not do it right, Father," said Misha. He showed his cloak of circles and open spaces.

The tailor looked at his son's cloak and, for a long time, said nothing. He was thinking of what his friend, the bookseller, had told him. Finally, he spoke.

"The cloak is beautiful, Misha," said the tailor. "The colors remind me of deep

oceans and winding rivers, green meadows and golden deserts, and the long routes between faraway places.

"But, it's true that this cloak will not keep out the wind and the rain. We cannot sell it to the Archduke. Still," he added, "no harm is done. Ivan and Alex have made the three cloaks we need."

Then the tailor smiled at his youngest son. "Perhaps you were not meant to be a tailor," he said. "But, you know that already, don't you?"

"Yes, Father," answered Misha.

"I see your dreams of traveling the world in all the circles of your cloak," continued the tailor. "Do you think it is time for you to cross these oceans and rivers, meadows and deserts, and to follow these routes to faraway places?"

"Yes, Father," answered Misha.

"Then take these cloaks and dresses to the Archduke, and come back to get ready for your own journey. Tomorrow your brothers and I will send you off into the world."

That night the tailor sat in his little shop, looking sadly at his third son's beautiful, but useless, cloak. Though he knew Misha had to leave home, he hated to see him go. He knew Ivan and Alex felt just as bad as he did.

"If only we could give Misha something to protect him as he makes his own way in the world," the tailor thought. He sat by the fire a little longer, and then he had an idea.

The tailor ran up the stairs and quietly woke Ivan and Alex.

"I know what we can give Misha to take on his journey into the world," whispered the tailor. "We can make him a new cloak from his own cloak of circles. That way, it will have all the colors of his dreams, but it will be sewn together in the practical way tailors sew things—and it will protect him from the wind and the rain."

"But how, Father?" asked Ivan. "The circles won't fit together."

"I know, my son," said the tailor. He motioned for his sons to follow him downstairs to the shop. There he explained how it could be done.

All night long the tailor and his two oldest sons worked on Misha's cloak. Ivan snipped the circles apart, and his father trimmed them into hexagons. As his father cut, Alex quickly sewed the hexagons together to make one cloth of the dreamer's colors. When the cloth was finished, the three tailors fashioned it into a strong and beautiful cloak. They stitched the last stitch as the sun came up on the day Misha was to leave home.

Later that morning, the tailor and his sons Ivan and Alex kissed and hugged Misha good-bye at the door of their little shop. Then they stood together and watched as the dreamer set off into the world, his beautiful cloak growing smaller and smaller in the distance.

1 100000043702

Which adjective **best** describes the tailor?

A foolish
B dishonest
☞ **C** kindhearted
D unreasonable

2 100000043703

Which **best** describes Misha?

A the youngest, and expected to inherit his father's shop
☞ **B** a dreamer, and not interested in his father's business
C a craftsman, and eager to take over his father's work
D envious, and likely to scheme for his father's store

3 100000043704

Which **best** describes the author's main idea in this passage?

☞ **A** People should follow their hearts.
B Everyone should learn how to sew well.
C No one should leave home without a map.
D People should do what others expect of them.

4 100000043698

What is the **most** likely meaning of pored in paragraph 4?

A flowed
☞ **B** studied
C dripped
D ignored

5 100000043705

Which of these facts is **most** important to the main idea of the story?

A Ivan picked up pins from the floor.
B The Archduke ordered three dresses.
☞ **C** Misha dreamed of visiting other places.
D Alex carefully put away the bolts of fabric.

6 100000043706

Why did Alex create two cloaks?

☞ **A** He was not confident about his work.
B His first cloak was full of open spaces.
C He had made a mistake and started over.
D He realized that Misha's cloak was useless.

7 100000043701

Where would you **most** likely find this story?

A in a biography of a tailor
☞ **B** in a collection of folk tales
C in a nonfiction book on sewing
D in a magazine about fabric crafts

8 100000043700

Where would you **most** likely find the story of a real-life person like Misha?

☞ **A** in a book about people who became explorers
B in an article about handmade clothing for men
C in an essay about running a large business today
D on a Web site about mapmaking around the world

100000043710

Read the following passage about Bessie Coleman. Then answer multiple-choice questions 9 through 16 and open-response question 2.

Fly High, Bessie Coleman

by Jane Sutcliffe

Two thousand people sat with their faces turned to the sky. High above the airfield, a pilot had just finished carving a crisp figure eight in the air. Suddenly, the plane seemed to stumble. Twisting and turning, it began to fall from the sky. The crowd watched in horror. Had something happened to the pilot?

But the woman in the cockpit of the plane on October 15, 1922, was in perfect control. Only two hundred feet above the ground she straightened out the tumbling aircraft and soared back into the sky. By the time she landed her plane, the crowd was on its feet, roaring with delight. Everyone cheered for Bessie Coleman, the first licensed black pilot in the world.

Growing Up

Bessie Coleman was born on January 26, 1892. She was a bright girl and a star pupil in school. In Waxahachie, Texas, where Bessie grew up, black children and white children attended different schools. Each year Bessie's school closed for months at a time. Instead of studying, the children joined their parents picking cotton on big plantations. Bessie's mother was proud of her daughter's sharp mind. She didn't want Bessie to spend her life picking cotton, and urged her to do something special with her life.

Learning to Fly

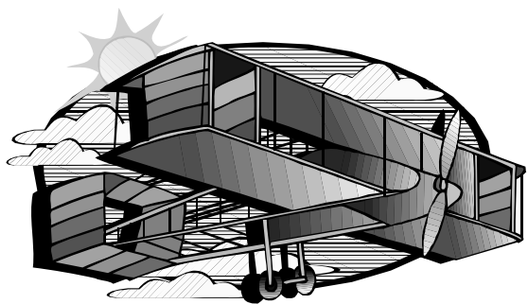
In 1915, when she was 23, Bessie Coleman moved to Chicago. She found a job as a manicurist in a men's barbershop. Coleman loved her job and the interesting people she met there. After the United States entered World War I in 1917, soldiers returning from the war often came to the shop. Coleman was fascinated by their stories of daredevil pilots. She read

everything she could about airplanes and flying. She later recalled, "All the articles I read finally convinced me I should be up there flying and not just reading about it."

Bessie Coleman asked some of Chicago's pilots for lessons. They refused. No one thought that an African American woman could learn to fly.

6 In desperation, Coleman asked Robert Abbott for help. Abbott owned Chicago's African American newspaper, *The Chicago Defender*. He had often promised to help members of the black community with their problems. Abbott told Coleman to forget about learning to fly in the United States. Go to France, he said to her, where no one would care if her skin was black or white.

So she did. First Coleman learned to speak French. Then she applied to a French flying school and was accepted. On November 20, 1920, Coleman sailed for France, where she spent the next seven months taking flying lessons. She learned to fly straight and level, and to turn and bank the plane. She practiced making perfect landings. On a second trip to Europe, she spent months mastering rolls, loops, and spins. These were the tricks she would need if she planned to make her living as a performing pilot.



Performing in Airshows

Coleman returned to the United States in the summer of 1922. Wherever she performed, other African Americans wanted to know where they, too, could learn to fly. It was a question that made Coleman sad. She hoped that she could make enough money from her airshows to buy her own plane. Then she could open a school so everyone would have a chance to feel the freedom she felt in the sky.

By early 1923, Coleman was close to her goal. She had saved her money and bought a plane. Then, as she was flying to an airshow in California, her engine stalled. The brand-new plane crashed to the ground.

Coleman suffered a broken leg and three broken ribs. Still, she refused to quit. "Tell them all that as soon as I can walk I'm going to fly!" she wrote to friends and fans.

11 Many people, both black and white, were very impressed by Coleman's determination. A white businessman helped her buy another plane. By 1926, Coleman was back where she had been before the crash. She wrote to her sister, "I am right on the threshold of opening a school."

That spring, Bessie Coleman was invited to perform in Jacksonville, Florida. Early on the morning of April 30, 1926, Coleman and another pilot took off for a short flight around the airshow field. At first everything went smoothly. Then a wrench that had been lying loose in the plane slid into the control gears, jamming them. Suddenly, the plane flipped upside down. Coleman had not strapped herself in, and she fell to the ground. Moments later, the plane crashed, killing the other pilot.

At 34, Bessie Coleman was dead, but her dream survived. In 1929, three years after her death, the Bessie Coleman Aero Clubs were formed. The clubs encouraged and trained African American pilots—just as Coleman had hoped to do. In 1931, the clubs sponsored the first All-African-American airshow. Bessie Coleman would have been proud.

9 100000043714

The passage is an example of what kind of writing?

A legend
B fantasy
☞ **C** biography
D autobiography

10 100000043717

Which sentence **best** summarizes the passage?

A Bessie Coleman bought her own plane in hopes of having a career as a pilot.
☞ **B** Bessie Coleman became a pilot and wanted to help others achieve the same goal.
C Bessie Coleman died from falling out of a plane, even though she was an awesome pilot.
D Bessie Coleman wanted to become a pilot after hearing the soldiers' stories about daredevil pilots.

11 100000043718

Why did Bessie Coleman want to open a flying school for African Americans?

A The French schools were full and could not train any more Americans.
☞ **B** Everyone would have a chance to feel the freedom she felt in the sky.
C With a flying school, she could make money to buy her own plane.
D She planned to make her living as a performing stunt pilot.

12 100000043715

How did Bessie Coleman overcome prejudice and learn to fly?

☞ **A** She learned to speak French, applied to a French flying school, and was accepted.
B A white businessman bought her an airplane and helped her get into a Chicago flying school.
C She started her own flying club and hired a pilot to give her flying lessons.
D Robert Abbott taught her to fly after she asked him to help her.

13 100000043719

Which rule might have prevented the airplane crash that killed Bessie Coleman?

A Always fly with another pilot.
B Never use a wrench on an airplane.
C Check out the engine before you fly.
☞ **D** Secure all loose items inside the plane.

14 100000043712

What did Bessie Coleman mean in paragraph 11 when she wrote to her sister, "I am right on the threshold of opening a school"?

A The new school would have an opening.
B She was standing in the doorway of a new school.
☞ **C** She was very close to being able to start a new school.
D The threshold would be a part of the opening of a school.

15 100000043716

Which effect **correctly** completes the graphic organizer?

Cause	Effect	Result
Plane's engine stalled		Bessie's leg and ribs were broken

A Saved money
☞ **B** Plane crashed
C Refused to quit
D Bought a new plane

16 100000043711

Why did the author use the word desperation to describe Bessie Coleman's action in paragraph 6?

A to show Bessie's fear of flying
B to cause the reader to want to take flying lessons
☞ **C** to emphasize how serious Bessie was about learning to fly
D to explain that Bessie did not have money for flying lessons

READING OPEN RESPONSE ITEM 1, FOR PASSAGE "A CLOAK FOR THE DREAMER"

1

100000043699

Using examples, details, or events from the passage, describe one way in which Misha and Alex are **different**. Is this difference important to the plot? Why or why not?

RUBRIC FOR READING OPEN RESPONSE ITEM 1, FOR PASSAGE "A CLOAK FOR THE DREAMER"

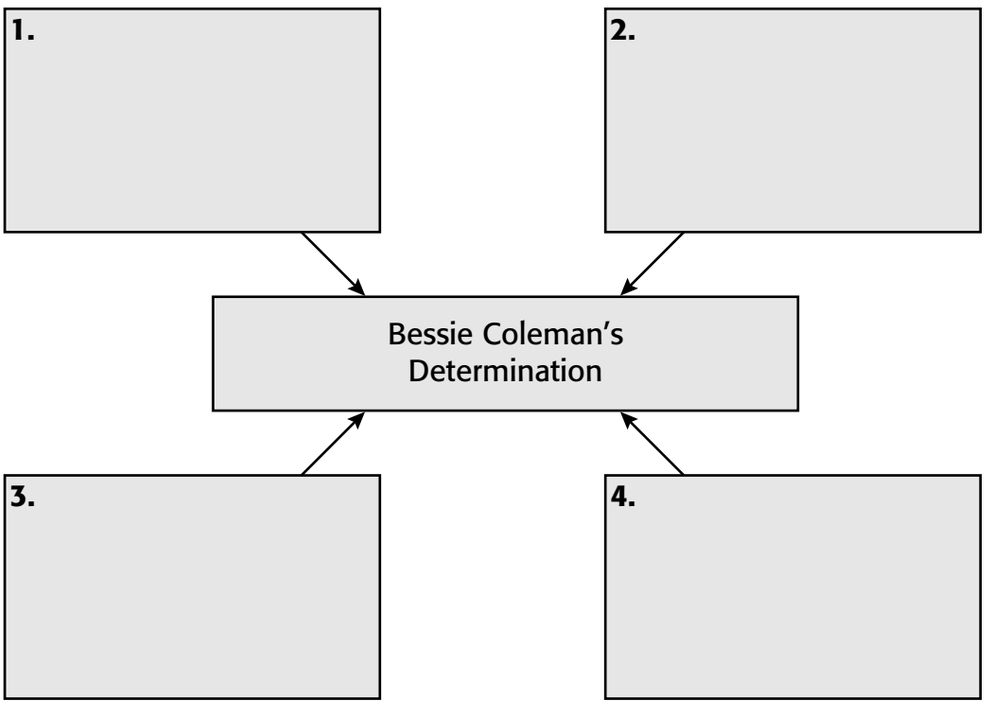
SCORE	DESCRIPTION
4	Response accurately describes one way Misha and Alex are different, supports this with information from the passage, gives an opinion about whether this difference is important to the plot, and tells why.
3	Response describes one way Misha and Alex are different, supports this with information from the passage, and gives an opinion about whether this difference is important to the plot OR describes a way Misha and Alex are different and gives an opinion about whether this difference is important, and tells why.
2	Response describes one way Misha and Alex are different and supports this with information from the passage OR describes a way Misha and Alex are different and gives an opinion about whether this difference is important OR gives an opinion about whether this difference is important to the plot and tells why.
1	Response describes one way Misha and Alex are different OR gives an opinion about whether this difference is important to the plot.
0	Response is incorrect or irrelevant.

READING OPEN RESPONSE ITEM 2, FOR PASSAGE "FLY HIGH, BESSIE COLEMAN"

2

100000043713

Complete the graphic organizer by listing four examples from the passage that show how Bessie Coleman demonstrated determination in becoming a pilot.



RUBRIC FOR READING OPEN RESPONSE ITEM 2, FOR PASSAGE "FLY HIGH, BESSIE COLEMAN"

SCORE	DESCRIPTION
4	Response provides four examples of determination from the passage.
3	Response provides three examples of determination from the passage.
2	Response provides two examples of determination from the passage.
1	Response provides one example of determination from the passage.
0	Response is incorrect or irrelevant.

1 100000041701

Ellen asked, Can you please help me finish doing the laundry?

What punctuation is missing from the sentence?

A period
B comma
☞ **C** quotation marks
D exclamation point

2 100000041702

The tiny, gray mouse quickly ran into the hole.

What word does tiny modify?

A gray
☞ **B** mouse
C quickly
D ran

PART II Released Writing Prompt–2008 Augmented Benchmark Grade 5

Writing Prompt

W04PR502 100000043489

Your teacher has asked you to write a friend about a "first" in your life, such as the first time you stayed home alone, the first time you stayed overnight at a friend's house, or the first time you rode a bicycle.

Before you begin to write, think about the first time you did something. Were you afraid? Were you proud? Was it fun?

Now write your story. Give enough detail so that your teacher will understand about the first time you did something.

Writer's Checklist

1. Look at the ideas in your response.

   — Have you focused on one main idea?
   — Have you used enough details to explain yourself?
   — Have you put your thoughts in order?
   — Can others understand what you are saying?

2. Think about what you want others to know and feel after reading your paper.

   — Will others understand how you think or feel about an idea?
   — Will others feel angry, sad, happy, surprised, or some other way about your response? (Hint: Make your reader feel like you do about your paper's subject.)
   — Do you have sentences of different lengths? (Hint: Be sure you have variety in sentence lengths.)
   — Are your sentences alike? (Hint: Use different kinds of sentences.)

3. Look at the words you have used.

   — Have you described things, places, and people the way they are? (Hint: Use enough detail.)
   — Are you the same person all the way through your paper? (Hint: Check your verbs and pronouns.)
   — Have you used the right words in the right places?

4. Look at your handwriting.

   — Can others read your handwriting with no trouble?

Domain Scoring Rubric

Content (C)
The Content domain includes the focusing, structuring, and elaborating that a writer does to construct an effective message for a reader. It is the creation of a product, the building of a composition intended to be read. The writer crafts his/her message for the reader by focusing on a central idea, providing elaboration of the central idea, and delivering the central idea and its elaboration in an organized text. Features are:

• Central idea • Elaboration • Unity • Organization

Style (S)
The Style domain comprises those features that show the writer purposefully shaping and controlling language to affect readers. This domain focuses on the vividness, specificity, and rhythm of the piece and the writer's attitude and presence. Features are:

• Selected vocabulary • Selected information • Sentence variety • Tone • Voice

Sentence Formation (F)
The Sentence Formation domain reflects the writer's ability to form competent, appropriately mature sentences to express his/her thoughts. Features are:

• Completeness • Standard word order • Absence of fused sentences
• Expansion through standard coordination and modifiers • Embedding through standard subordination and modifiers

Usage (U)
The Usage domain comprises the writer's use of word-level features that cause written language to be acceptable and effective for standard discourse. Features are:

• Standard inflections • Agreement • Word meaning • Conventions

Mechanics (M)
The Mechanics domain includes the system of symbols and cueing devices a writer uses to help readers make meaning. Features are:

• Capitalization • Punctuation • Formatting • Spelling

Scoring Scale
Each domain is scored independently using the following scale:
4 = The writer demonstrates **consistent**, though not necessarily perfect, control* of almost all of the domain's features.
3 = The writer demonstrates **reasonable**, but not consistent, control* of most of the domain's features, indicating some weakness in the domain.
2 = The writer demonstrates **inconsistent control*** of several of the domain's features, indicating significant weakness in the domain.
1 = The writer demonstrates **little** or **no** control* of most of the domain's features.

*Control: The ability to use a given feature of written language effectively at the appropriate grade level. A response receives a higher score to the extent that it demonstrates control of the features in each domain.

The application of the scale, using actual student writing, is done with the assistance of a committee of Arkansas teachers, language arts supervisors, and representatives of the Arkansas Department of Education.

Non-scoreable and Blank Papers
Compositions are scored, unless they are off-topic, illegible, incoherent, refusals to respond, written in a language other than English, or too brief to assess. A score of "NA" indicates that the student's writing entry was non-scoreable and that entry will receive a score of "0."

CALCULATOR NOT PERMITTED—ITEMS 1–3

1

100000044560

Which place-value table **correctly** shows the standard form for ten and eighty-five hundredths?

A

Thousands	Hundreds	Tens	Ones	.	Tenths	Hundredths	Thousandths
			1	.	0	8	5

☞ **B**

Thousands	Hundreds	Tens	Ones	.	Tenths	Hundredths	Thousandths
		1	0	.	8	5	

C

Thousands	Hundreds	Tens	Ones	.	Tenths	Hundredths	Thousandths
	1	0	8	.	5		

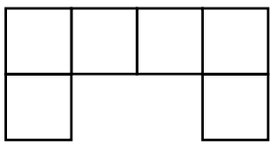
D

Thousands	Hundreds	Tens	Ones	.	Tenths	Hundredths	Thousandths
1	0	8	5	.			

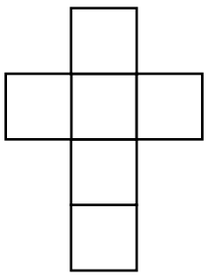
2 100000044581

Dustin is making a cube-shaped box to hold a gift. Which net would make a cube-shaped box?

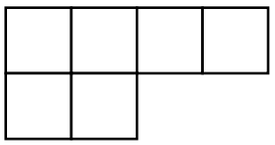
A



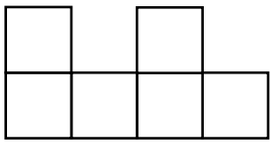
☞ **B**



C



D



3 100000044519

Jasmine and Amanda were comparing their ages. Jasmine was born on June 21, 1997. Amanda was born on March 21, 1998. How many months apart are their ages?

A 3
B 4
☞ **C** 9
D 10

CALCULATOR PERMITTED–ITEMS 4–10 and 1–2

4 100000044547

Alex wants to find out which pet is his classmates' favorite. What would be the **best** question for Alex to ask his classmates?

A Do you have a pet?
B Do you like animals?
C What zoo animal is your favorite?
☞ **D** What kind of pet do you like best?

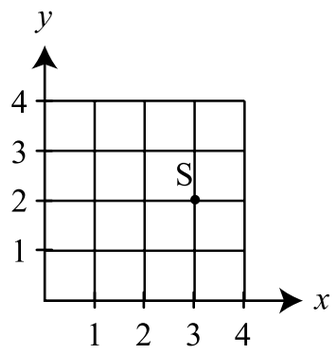
5 100000044515

If Ms. Bowing's students were counting around their classroom by 6s and Ms. Bowing has 22 students, what number would the last student say?

A 110
B 122
☞ **C** 132
D 154

6 100000044571

Which ordered pair describes point S?



A (2, 3)
☞ **B** (3, 2)
C (3, 3)
D (4, 2)

7 100000044516

What is the rule for finding the output in the function table below?

Input (x)	Output (y)
64	8
560	70
16	2
32	4
48	6

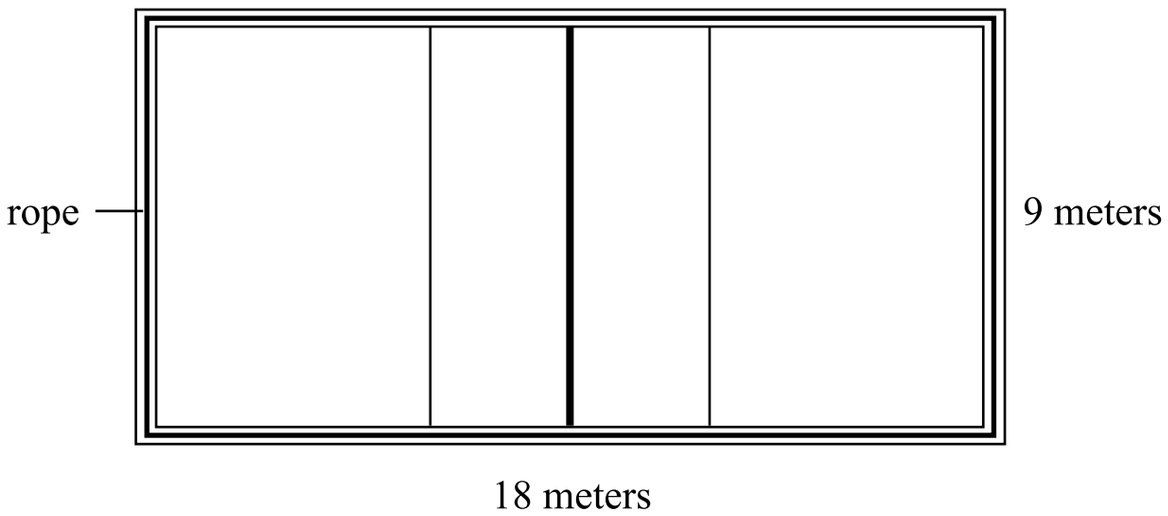
A add 28
B subtract 28
☞ **C** divide by 8
D multiply by 8

8

100000044525

Stephanie is using a rope to outline the perimeter of the rectangular volleyball court, as shown below.

Volleyball Court



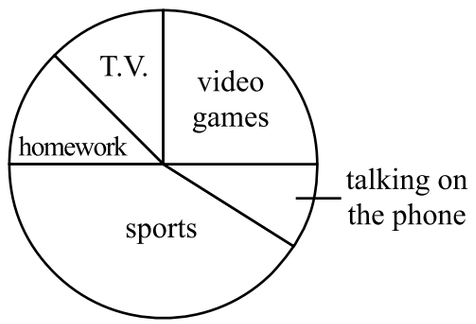
How long does the rope need to be to outline the whole perimeter?

A 27 meters
B 36 meters
☞ **C** 54 meters
D 162 meters

9 100000044545

A survey of 100 students' favorite after-school activities is displayed in the circle graph below.

Favorite After-School Activity



About how many students chose sports as their favorite activity?

A 20
☞ **B** 40
C 50
D 60

10 100000044568

Steve has 5 out of 15 pieces of gum left in his pack. What fractional number represents the amount of gum he has left, in its simplest form?

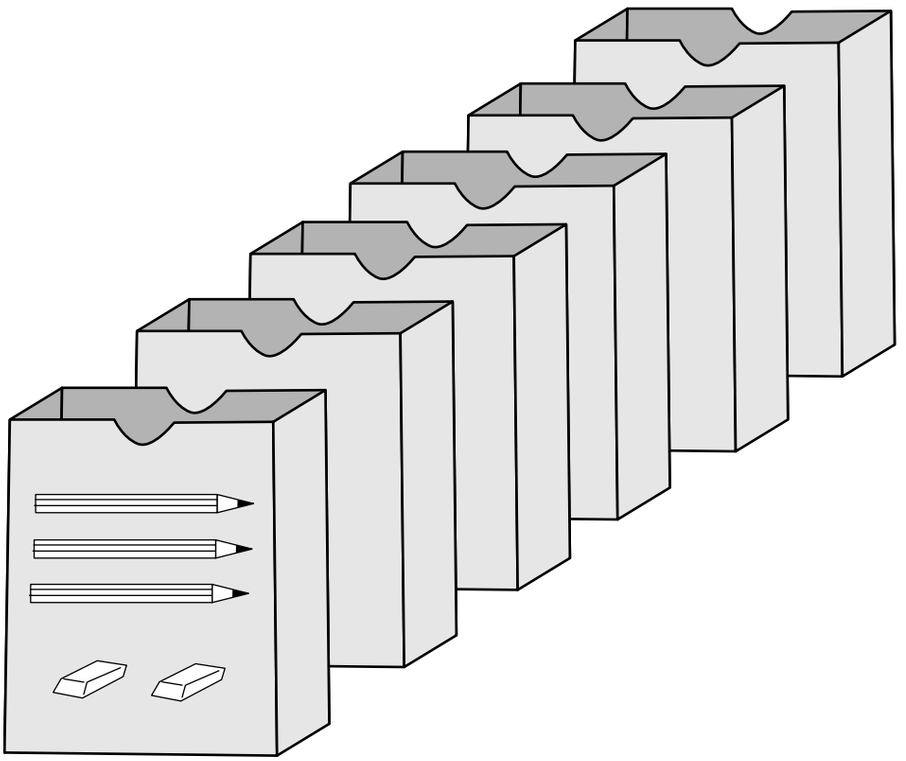
☞ **A** $\frac{1}{3}$
B $\frac{2}{3}$
C $\frac{10}{15}$
D $\frac{3}{1}$

MATHEMATICS OPEN RESPONSE ITEM 1

1

100000044585

Rachel and her brother are making gift bags for 6 friends. Each bag has 3 pencils and 2 erasers, as shown below.



1. How many total items are in 1 bag? How many total items are in 6 bags? Show all your work and/or explain your answer.
2. Rachel's brother says that he determined the number of items needed by using the equation n = (6 bags × 3 pencils) + (6 bags × 2 erasers). How many items did he determine they needed altogether?
3. Which property of math is related to the equation in Part 2 that Rachel's brother used to determine the number of items they needed?

BE SURE TO LABEL YOUR RESPONSES 1, 2, AND 3.

RUBRIC FOR MATHEMATICS OPEN RESPONSE ITEM 1

SCORE	DESCRIPTION
4	Response contains no incorrect work.
3	The student earns 3 points.
2	The student earns 2 points.
1	1 or some minimal understanding shown.
0	Blank – No Response. A score of "B" will be reported as "NA." (No attempt to answer the item. Score of "0" assigned for the item.)

Solution and Scoring

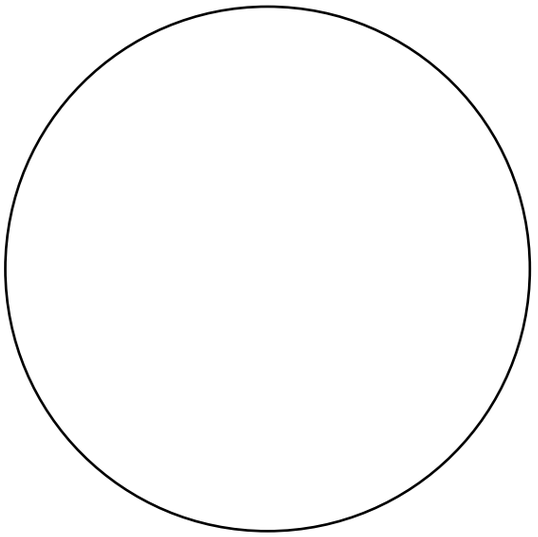
Part	Points
1	**2 points possible** 2 points: **2 correct answers (5, 30) with work shown or explained for # of items in 6 bags.** Give credit for the following or equivalent: • 3 + 2 = 5, 6 x 5 = 30 or • "5 are in 1 bag, so multiply 6 x 5 to get 30, the # in 6 bags." **Or** 1 point: Give credit for the following: • Answers are correct, but work is not shown for # in 6 bags. Ex: 5, 30 or • Answer(s) incorrect due to 1 calculation or copy error Correct procedures are shown Ex: 5, 5 x 6 = 32
2	**1 point possible** 1 point: Correct answer: **30**
3	**1 point possible** 1 point: **Give credit for the following:** • Distributive property or • a(b + c) = ab + ac

MATHEMATICS OPEN RESPONSE ITEM 2

2

100000044502

Mallory's teacher drew the circle below on the board and asked the students to completely label its parts.



On the grid provided in your answer document, copy the circle. Draw the parts given below and label each with the appropriate name.

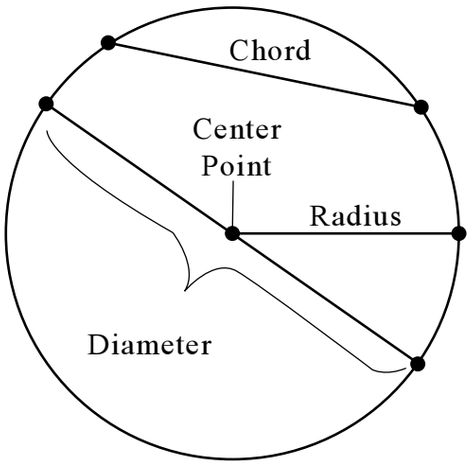
- center
- chord
- radius
- diameter

RUBRIC FOR MATHEMATICS OPEN RESPONSE ITEM 2

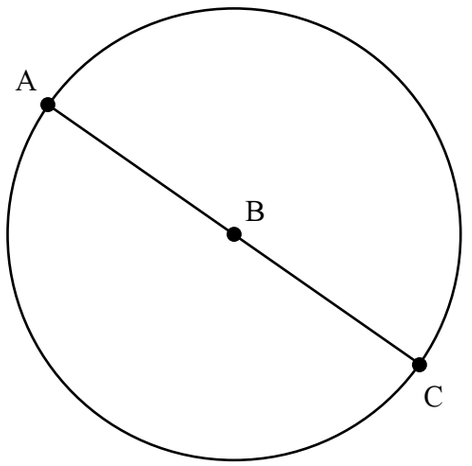
SCORE	DESCRIPTION
4	Response contains no incorrect work.
3	The student earns 3 points.
2	The student earns 2 points.
1	1 or some minimal understanding shown.
0	Blank – No Response. A score of "B" will be reported as "NA." (No attempt to answer the item. Score of "0" assigned for the item.)

Solution and Scoring

Part	Points
1	**4 points possible**



OR



B is the center. $\overline{AC}$ is a chord and a diameter. $\overline{BC}$ (or $\overline{AB}$) is a radius.

Circle is drawn with the following parts included:

1 point: Center point is correctly drawn and labeled
And
1 point: Chord is correctly drawn and labeled
And
1 point: Radius is correctly drawn and labeled
And
1 point: Diameter is correctly drawn and labeled

Mathematics Reference Sheet
Grade 5

Use the information below, as needed, to answer questions on the Mathematics test.

Square	**Rectangle**	**Triangle**
Area = $s \times s$ Perimeter = $4 \times s$	Area = $l \times w$ Perimeter = $(2 \times l) + (2 \times w)$	Perimeter = $a + b + c$

1 foot = 12 inches
1 yard = 3 feet
1 mile = 5,280 feet

1 cup = 8 ounces (oz)
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts

1 kilogram = 1000 grams
1 meter = 100 centimeters
1 centimeter = 10 millimeters
1 kilometer = 1000 meters
1 liter = 1000 milliliters

1 pound (lb) = 16 ounces (oz)

1 100000051980

Sir Isaac Newton determined that white light is made up of all the colors of the rainbow. What did he use to discover this phenomenon?

☞ **A** a prism
B a telescope
C a microscope
D a magnifying glass

2 100000052008

What is the **best** way for a marine scientist to determine the eating habits of sharks?

A Tag one shark and monitor its eating habits for one day.
B Tag one shark and monitor its eating habits for one year.
C Tag several sharks and monitor their eating habits for one day.
☞ **D** Tag several sharks and monitor their eating habits for one year.

3 100000052018

Which would **best** aid a scientist in discovering how Earth may have changed over time?

A finding the nest of a bald eagle
B tracking the footprints of a wolf
C analyzing the pollination of a sunflower
☞ **D** discovering a fossil of a seashell in a wooded area

4 100000052032

What is one way in which Jupiter is similar to Saturn?

A They both are hotter than Earth.
B They both are smaller than Earth.
☞ **C** They both have more moons than Earth.
D They both have shorter orbital paths than Earth.

5 100000051985

Which action should be taken in order to identify the streak of a mineral during an investigation?

A Weigh the mineral.
B Dip the mineral in acid.
C Heat the mineral until it melts.
☞ **D** Drag an edge of the mineral across a tile.

6 100000051982

A student is asked to make soil using the following substances: water, ore, humus, crystal, weathered rock, and metamorphic rock. Which combination of these substances should the student choose?

A humus, crystal, and ore
☞ **B** water, weathered rock, and humus
C water, metamorphic rock, and crystal
D metamorphic rock, ore, and weathered rock

7 100000052011

What do cells break down to produce energy?

☞ **A** food
B water
C chlorophyll
D carbon dioxide

8 100000052028

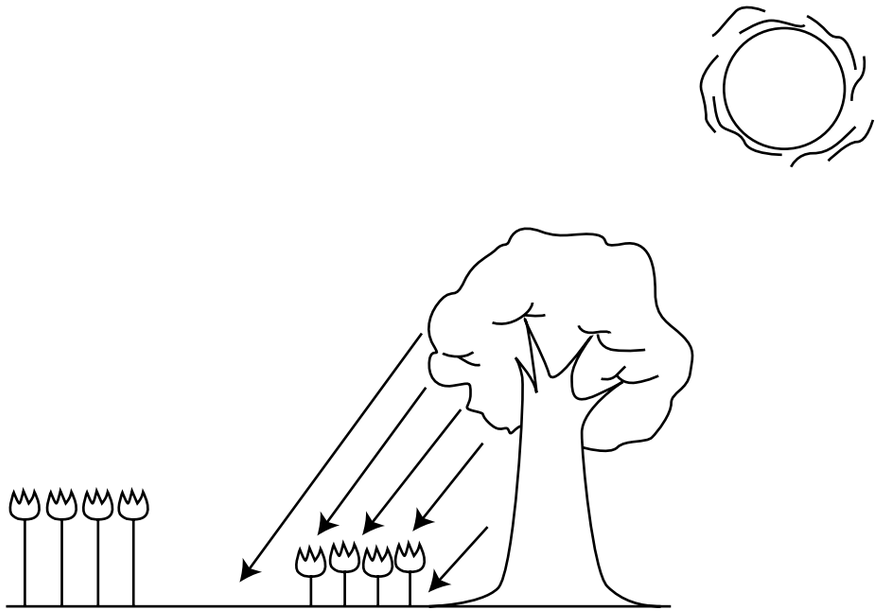
Which type of scientist would study the relationship between simple machines and energy?

A chemist
B biologist
☞ **C** physicist
D geologist

9

100000052003

The figure below shows a tree and flowers growing in the sunlight and in the shade.



What is the **best** hypothesis that can be developed based on the figure?

A Flowers like to grow near trees.
B Flowers grow taller in the sunlight.
C Flowers smell better when they are taller.
D Flowers grow in groups of four when in the shade.

10 100000052019

What is the **best** conclusion that can be made upon discovering a fossil of a freshwater fish in a desert area?

A The fish migrated from the ocean.
B The fish was unable to reproduce.
C A mountain used to be in this area.
☞ **D** A river used to run through this area.

11 100000052012

With a microscope, you see that an object has a cell wall, a chloroplast, and a nucleus. What is being observed?

☞ **A** a plant cell
B an animal cell
C a male organism
D a female organism

12 100000051990

In which case does a physical change occur?

☞ **A** Ice melts into water.
B Bread burns in a toaster.
C A cake bakes in an oven.
D Two chemicals form a new substance.

13 100000051988

Which is a characteristic of sedimentary rock?

☞ **A** forms in layers
B looks very shiny
C contains crystals
D forms from magma

14 100000052031

Which is the order of the planets from closest to the Sun to farthest from the Sun?

☞ **A** Mercury, Venus, Earth, Mars
B Mars, Mercury, Earth, Venus
C Earth, Venus, Mercury, Mars
D Venus, Earth, Mars, Mercury

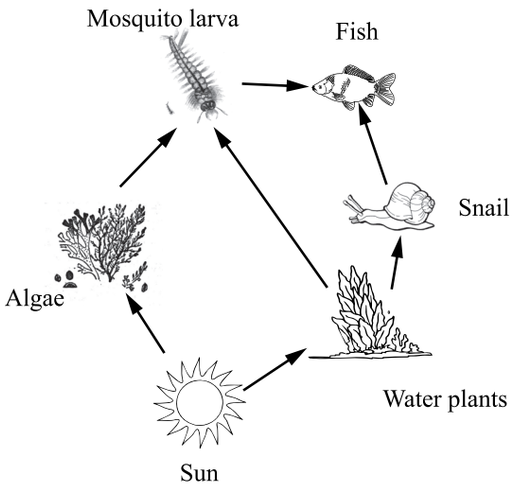
15 100000052027

Which is true of a car that is accelerating along a horizontal roadway?

☞ **A** Its kinetic energy is increasing.
B Its kinetic energy is decreasing.
C Its potential energy is increasing.
D Its potential energy is decreasing.

16 100000051973

The diagram below represents an aquatic food web.



What must the fish do to gain energy from the Sun?

A feed on water plants
B perform photosynthesis
☞ **C** eat snails and mosquito larvae
D live in warm areas of the pond

SCIENCE OPEN RESPONSE ITEM 1

1

100000052021

Answer the following.

1. Identify two types of physical change.
2. Describe four ways that water can go through a physical change.

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

RUBRIC FOR SCIENCE OPEN RESPONSE ITEM 1

SCORE	DESCRIPTION
4	Response shows a *complete understanding* of the problem's essential scientific concepts. The student presents all procedures correctly and responds to all parts of the task.
3	Response shows a *nearly complete understanding* of the problem's essential scientific concepts. The student presents nearly all procedures correctly and responds to all parts of the task. The response may contain minor errors.
2	Response shows a *limited understanding* of the problem's essential scientific concepts. The student presents some procedures correctly and responds correctly to most parts of the task. The response may contain a major error.
1	Response shows a *minimum understanding* of the problem's essential scientific concepts. The student presents some correct work that contributes to a correct solution. The response contains incomplete procedures and major errors.
0	Response shows *insufficient understanding* of the problem's essential scientific concepts. The procedures, if any, contain major errors. There may be no explanation of the solution, or the reader may not be able to understand the explanation. The reader may not be able to understand how and why decisions were made.

Solution and Scoring

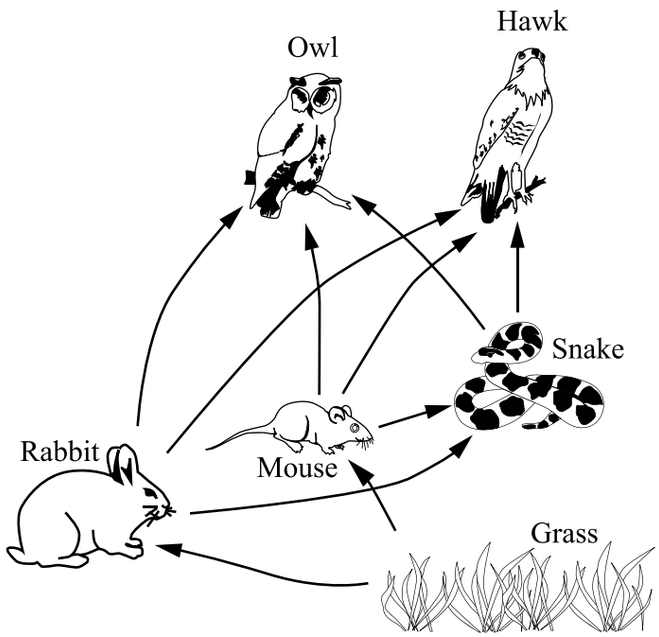
Parts	Points
1	**2 points possible:** 1 point: Lists one type of physical change. 1 point: Lists one type of physical change.
2	**2 points possible:** 1/2 point: for describing one way water can go through a physical change 1/2 point: for describing a 2nd way water can go through a physical change 1/2 point: for describing a 3rd way water can go through a physical change 1/2 point: for describing a 4th way water can go through a physical change for a total of 2 possible points

SCIENCE OPEN RESPONSE ITEM 2

2

100000051999

The diagram below represents a terrestrial food web.



1. How are predators **different** from prey? Give an example of each from the food web.
2. How are producers **different** from consumers? Give an example of each from the food web.
3. How are herbivores **different** from carnivores? Give an example of each from the food web.
4. This food web does not show a decomposer or a scavenger. How is a decomposer **different** from a scavenger? Give an example of each that could be included in the food web.

BE SURE TO LABEL YOUR RESPONSES 1, 2, 3, AND 4.

RUBRIC FOR SCIENCE OPEN RESPONSE ITEM 2

SCORE	DESCRIPTION
4	Response shows a *complete understanding* of the problem's essential scientific concepts and procedures. The student responds to all parts of the task.
3	Response shows a *nearly complete understanding* of the problem's essential scientific concepts and procedures. The student responds to all parts of the task. The response may contain minor errors.
2	Response shows a *limited understanding* of the problem's essential scientific concepts and procedures. The student correctly responds to most parts of the task. The response may contain a major error.
1	Response shows a *minimum understanding* of the problem's essential scientific concepts and procedures. The response contains incomplete procedures and major errors.
0	Response shows *insufficient understanding* of the problem's essential scientific concepts and procedures. The procedures, if any, contain major errors. There may be no explanation of the solution, or the reader may not be able to understand the explanation. The reader may not be able to understand how and why decisions were made.

Solution and Scoring

Parts	Points
1	**1 point possible:** 1/2 point for defining predator and prey 1/2 point for examples of both predators and prey
2	**1 point possible:** 1/2 point for defining producer and consumer 1/2 point for examples of both producers and consumers
3	**1 point possible:** 1/2 point for defining herbivores and carnivores 1/2 point for examples of both herbivores and carnivores
4	**1 point possible:** 1/2 point for defining decomposer and scavenger 1/2 point for examples of both decomposers and scavengers

PART III Item Correlation with Curriculum Frameworks–2008 Augmented Benchmark Grade 5

The Arkansas *English Language Arts Framework–Reading Strand**

Content Standards	Student Learning Expectations
9. Comprehension: Students shall apply a variety of strategies to read and comprehend printed material.	6. Connect own background knowledge and personal experience to make inferences and to respond to new information presented in text 7. Make inferences supported by a character's thoughts, words and actions, or the narrator's description 8. Analyze literary elements of character, plot, and setting 9. Compare/contrast the actions, motives and appearance of characters in a work of fiction and discuss the importance of the contrasts to the plot 12. Identify main ideas and supporting evidence in short reading passages 15. Classify and organize text information by level of importance in a variety of ways, including timelines and graphic organizers, to support and explain ideas 19. Summarize information including main idea and significant supporting details 20. Evaluate a character's decision/action
10. Variety of texts: Students shall read, examine, and respond to a wide range of texts for a variety of purposes.	5. Identify cause/effect and problem/solution relationships 10. Read a variety of literature, including historical fiction, biography, and realistic fiction 14. Use graphic organizers to analyze information
11. Vocabulary, Word Study, and Fluency: Students shall acquire and apply skills in vocabulary development and word analysis to be able to read fluently.	5. Use context to determine meaning of multiple meaning words 7. Determine useful and relevant words

*The Content Standards and Student Learning Expectations listed are those that specifically relate to the released test items in this booklet.

Released Items for Reading*

Item	Content Standard	Student Learning Expectation	Passage Type
1	9	7	Literary
2	9	8	Literary
3	9	12	Literary
4	11	5	Literary
5	9	15	Literary
6	9	20	Literary
7	10	10	Literary
8	10	10	Literary
9	10	10	Content
10	9	19	Content
11	9	12	Content
12	10	5	Content
13	9	6	Content
14	11	5	Content
15	10	5	Content
16	11	7	Content
1	9	9	Literary
2	10	14	Content

*Only the predominant Strand, Content Standard, and Student Learning Expectation is listed.

Non-Released Items for Reading*

Item	Content Standard	Student Learning Expectation	Passage Type
1	11	8	Practical
2	9	10	Practical
3	9	11	Practical
4	11	10	Practical
5	9	7	Practical
6	9	19	Practical
7	9	11	Practical
8	9	11	Practical
9	9	6	Practical

PART III Item Correlation with Curriculum Frameworks—2008 Augmented Benchmark Grade 5

The Arkansas *English Language Arts Framework—Writing Strand**

Content Standards	Student Learning Expectations
6. Conventions: Students shall apply knowledge of Standard English conventions in written work.	6. Define and identify the parts of speech to construct effective sentences • Common and proper nouns • Pronouns to avoid repetition • Active and linking verbs • Adjectives to modify nouns and pronouns • Adverbs to modify verbs, adjectives, and other adverbs • Conjunctions to join • Interjections for excitement • Prepositions to indicate relationships 11. Apply conventional rules of punctuation in writing with emphasis on • End marks • Quotation marks • Comma in a series • Comma in compound sentences • Comma in complex sentence • Comma in direct address

*The Content Standards and Student Learning Expectations listed are those that specifically relate to the released test items in this booklet.

Released Items for Writing*

Item	Content Standard	Student Learning Expectation
1	6	11
2	6	6

Non-Released Items for Writing*

Item	Content Standard	Student Learning Expectation
1	6	5
2	6	1

*Only the predominant Strand, Content Standard, and Student Learning Expectation is listed.

PART III Item Correlation with Curriculum Frameworks– 2008 Augmented Benchmark Grade 5

The Arkansas *Mathematics Curriculum Framework**

Strands	Content Standards	Student Learning Expectations
Number and Operations	1. Number Sense Students shall understand numbers, ways of representing numbers, relationships among numbers and number systems.	2. Develop understanding of decimal place value using models
	2. Properties of Number Operations Students shall understand meanings of operations and how they relate to one another.	3. Identify the distributive property by using physical models to solve computation and real world problems
	3. Numerical Operations and Estimation Students shall compute fluently and make reasonable estimates.	5. Use factors of numbers: • to introduce exponents Ex. $36 = 6 \times 6$ or 6^2 • to find common factors of two numbers • to simplify fractions to the lowest terms
Algebra	4. Patterns, Relations and Functions Students shall recognize, describe, and develop patterns, relations and functions	1. Solve problems by finding the next term or missing term in a pattern or function table using real world situations 2. Interpret and write a rule for a one operation function table Ex. adding 3
Geometry	8. Geometric Properties Students shall analyze characteristics and properties of 2 and 3 dimensional geometric shapes and develop mathematical arguments about geometric relationships	3. Model and identify circle, radius, diameter, center, circumference and chord
	10. Coordinate Geometry Students shall specify locations and describe spatial relationships using coordinate geometry and other representational systems	1. Use geometric vocabulary (horizontal/x-axis, vertical/y-axis, ordered pairs) to describe the location and plot points in Quadrant I
	11. Visualization and Geometric Models Students shall use visualization, spatial reasoning and geometric modeling	1. Using grid paper, draw and identify two-dimensional patterns (nets) for cubes
Measurement	13. Systems of Measurement Students shall identify and use units, systems and processes of measurement	1. Solve real world problems involving one elapsed time, counting forward (calendar and clock) 4. Develop and use strategies to solve real world problems involving perimeter and area of rectangles
Data Analysis and Probability	14. Data Representation Students shall formulate questions that can be addressed with data and collect, organize and display	1. Develop appropriate questions for surveys
	15. Data Analysis Students shall select and use appropriate statistical methods to analyze data	1. Interpret graphs such as line graphs, double bar graphs, and circle graphs

*The Content Standards and Student Learning Expectations listed are those that specifically relate to the released test items in this booklet.

PART III Item Correlation with Curriculum Frameworks— 2008 Augmented Benchmark Grade 5

Released Items for Mathematics*

Item	Strand	Content Standard	Student Learning Expectation
1	N	1	2
2	G	11	1
3	M	13	1
4	D	14	1
5	A	4	1
6	G	10	1
7	A	4	2
8	M	13	4
9	D	15	1
10	N	3	5
1	N	2	3
2	G	8	3

*Only the predominant Strand, Content Standard, and Student Learning Expectation is listed.

Non-Released Items for Mathematics*

Item	Strand	Content Standard	Student Learning Expectation
1	M	12	1
2	A	5	3
3	M	13	3
4	G	9	1
5	A	5	1
6	G	8	4
7	N	3	3
8	D	17	2
9	N	3	1
10	A	5	3
11	A	7	1
12	D	15	2
13	G	9	1
14	G	8	2
15	N	3	5
16	A	5	1
17	D	17	1
18	M	13	1

PART III Item Correlation with Curriculum Frameworks—2008 Augmented Benchmark Grade 5

The Arkansas *Science Curriculum Framework**

Strands	Content Standards	Student Learning Expectations
Nature of Science	1. Characteristics and Processes of Science Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.	6. Develop and implement strategies for long-term, accurate data collection 9. Define and give examples of hypotheses
Life Science	2. Living Systems: Characteristics, Structure, and Function Students shall demonstrate and apply knowledge of living systems using appropriate safety procedures, equipment, and technology.	3. Describe the similarities of basic cell functions in all organisms 5. Compare and contrast plant and animal cells
	4. Populations and Ecosystems Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.	3. Design food webs in specific habitats to show the flow of energy within communities: • terrestrial • aquatic 14. Categorize organisms by the function they serve in ecosystems and food webs: • predator/prey • parasitism • producer/consumer/decomposer • scavenger • herbivore/carnivore/omnivore
Physical Science	5. Matter: Properties and Changes Students shall demonstrate and apply knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.	5. Identify characteristics and common examples of physical changes
	6. Motion and Forces Students shall demonstrate and apply knowledge of motion and forces using appropriate safety procedures, equipment, and technology.	5. Classify real world examples as potential energy or kinetic energy as applied to motion 7. Investigate careers, scientists, and historical breakthroughs related to simple machines and potential and kinetic energy
	7. Energy and Transfer of Energy Students shall demonstrate and apply knowledge of energy and transfer of energy using appropriate safety procedures, equipment, and technology.	6. Investigate careers, scientists, and historical breakthroughs related to light energy

*The Content Standards and Student Learning Expectations listed are those that specifically relate to the released test items in this booklet.

PART III Item Correlation with Curriculum Frameworks—2008 Augmented Benchmark Grade 5

The Arkansas *Science Curriculum Framework*(continued)*

Strands	Content Standards	Student Learning Expectations
Earth and Space Science	8. Earth Systems Students shall demonstrate and apply knowledge of Earth's structure and properties using appropriate safety procedures, equipment, and technology.	4. Conduct investigations on mineral properties: • luster • hardness • streak • acid test for calcite • fluorescence 7. Identify characteristics of sedimentary, igneous, and metamorphic rocks 11. Investigate the formation of soil
	9. Earth's History: Changes in Earth and Sky Students shall demonstrate and apply knowledge of Earth's history using appropriate safety procedures, equipment, and technology.	1. Explain and give examples of how physical evidence from fossils supports the theory that Earth has changed over time 3. Infer the nature of ancient environments based on fossil record evidence
	10. Objects in the Universe Students shall demonstrate and apply knowledge of objects in the universe using appropriate safety procedures, equipment, and technology.	2. Demonstrate the order of planets and other space objects in our solar system 3. Compare the properties of planets in our solar system: • size • shape • density • atmosphere • distance from the sun • orbital path • moons • surface • composition

*The Content Standards and Student Learning Expectations listed are those that specifically relate to the released test items in this booklet.

PART III Item Correlation with Curriculum Frameworks– 2008 Augmented Benchmark Grade 5

Released Items for Science*

Item	Strand	Content Standard	Student Learning Expectation
1	PS	7	6
2	NS	1	6
3	ES	9	1
4	ES	10	3
5	ES	8	4
6	ES	8	11
7	LS	2	3
8	PS	6	7
9	NS	1	9
10	ES	9	3
11	LS	2	5
12	PS	5	5
13	ES	8	7
14	ES	10	2
15	PS	6	5
16	LS	4	3
1	PS	5	5
2	LS	4	14

*Only the predominant Strand, Content Standard, and Student Learning Expectation is listed.

Non-Released Items for Science*

Item	Strand	Content Standard	Student Learning Expectation
1	LS	4	15
2	LS	2	4
3	ES	9	2
4	NS	1	7
5	LS	4	16
6	ES	8	5
7	PS	5	7
8	PS	5	1
9	PS	7	1
10	LS	4	18
11	PS	6	1
12	LS	2	7
13	ES	10	1
14	LS	4	5
15	PS	6	1
16	ES	8	10
17	NS	1	3
18	LS	4	2
19	ES	10	3

ACTAAP

Arkansas Comprehensive Testing, Assessment, and Accountability Program

1 2 3 4 5 6 7 8 9 10 11 12 A B C D E